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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,489	07/18/2003	Robert Louis Cobene II	100110643	2048
<div>22879      7590      12/14/2007 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400</div>			<div>EXAMINER GOFF II, JOHN L</div>	
			ART UNIT	PAPER NUMBER
			1791	
			NOTIFICATION DATE	DELIVERY MODE
			12/14/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM  
mkraft@hp.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/621,489	<b>Applicant(s)</b> COBENE, ROBERT LOUIS	
	<b>Examiner</b> John L. Goff	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31-44 is/are pending in the application.
- 4a) Of the above claim(s) 1-25, 29, 31 and 34-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-28, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/07 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 102/103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 26 and 27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morishige et al. (U.S. Patent 5,246,325).

Morishige discloses a method of bonding an assembly of plural sheets to form a book-like structure comprising contacting a translatable first contacting surface (107 of Figure 12) to a backed hot melt adhesive sheet (110 and 112 of Figure 12) located on a spine surface of the assembly of plural sheets (111 of Figure 12), the spine surface being perpendicular to a planar

surface of the assembly of plural sheets, applying force with at least a translatable second contacting surface (opposite to 107 of Figure 12) mounted for movement with the first contacting surface to the planar surface in an area where the backed hot melt adhesive sheet contacts the planar surface, and actively withdrawing heat from the backed hot melt adhesive sheet wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle (Figure 12 and Column 5, lines 64-68 and Column 6, lines 1-52).

Regarding the limitation of actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the adhesive, Morishige teaches the hot melt adhesive of the backed hot melt adhesive sheet is heated and melted considered heated to a temperature above the glass transition temperature of the hot melt adhesive and then actively cooled to solidify the hot melt adhesive considered actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the adhesive. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that heating to melt the hot melt adhesive and actively cooling to solidify the hot melt adhesive as taught by Morishige would have included actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of the hot melt adhesive of the backed hot melt adhesive sheet from above a glass transition temperature of the hot melt

adhesive to below the glass transition temperature of the adhesive otherwise the melted hot melt adhesive would not be solidified after active cooling.

***Claim Rejections - 35 USC § 103***

5. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morishige in view of Boss (U.S. Pre-Grant Publication 2001/0019691).

Morishige is described above in full detail. Morishige teaches the hot melt adhesive is cooled via an unshown cooling means. Morishige does not specifically teach the cooling is performed by an active heat sink attached to and in thermal communication with at least one of the first and second contacting surfaces, i.e. clamping jaws. Boss discloses a method of binding a plurality of sheets to form a book-like structure comprising providing an assembly of plural sheets (14 of Figure 2) including an adhesive portion along the spine and planar surface of the assembly (12 of Figure 2), providing a clamping jaw (22 of Figure 2) comprising an actively cooled heat sink (30 of Figure 2) attached to, i.e. connected to, and in thermal communication with a contacting surface (28 of Figure 2), displacing the clamping jaw at a distance greater than the thickness of the assembly of plural sheets, translating the clamping jaw to apply pressure to the planar surface of the assembly of plural sheets, applying heat to the clamping body to melt the adhesive, and then withdrawing heat from the assembly of plural sheets and the clamping body through the actively cooled heat sink to form the book-like structure (Figure 2 and Paragraph 17). Boss teaches including the actively cooled heat sink within the clamping jaw allows rapid heating and cooling of the assembly of plural sheets and clamping body (Paragraph 17). It would have been obvious to one of ordinary skill in the art at the time the invention was

made to use as the cooling means taught by Morishige a heat sink within the clamping jaw (i.e. attached to and in thermal communication with the first and second contacting surfaces) as shown by Boss to allow rapid heating and cooling of the assembly.

6. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morishige in view of Kuramoto et al. (U.S. Pre-Grant Publication 2002/0064437).

Morishige is described above in full detail. Morishige does not specifically teach attaching the backed hot melt adhesive sheet to the spine surface of the assembly of plural sheets by softening discrete points of the sheet by heating to a temperature above the glass transition temperature of the hot melt adhesive. Kuramoto discloses a method of binding a plurality of sheets to form a book-like structure comprising providing an assembly of plural sheets, contacting a hot melt adhesive sheet to a spine surface of the assembly of plural sheets, melting the hot melt adhesive sheet at discrete points to soften the sheet which is considered to include raising a temperature of the hot melt adhesive above a glass transition temperature of the adhesive, and tack the hot melt adhesive sheet to the spine to prevent displacement of the hot melt adhesive sheet during subsequent processing steps, and then bonding the hot melt adhesive sheet to the spine using a clamping apparatus including an active cooling means to form the book-like structure (Paragraphs 47, 49, and 50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Morishige a step of tacking the backed hot melt adhesive sheet in discrete points to the spine of the assembly of plural sheets to prevent the backed hot melt adhesive sheet from displacing during clamping with the first and second bonding surfaces as shown by Kuramoto et al.

7. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka (U.S. Patent 6,024,525) in view of Boss and Clark (U.S. Patent 5,871,323).

Yamanaka discloses a method of bonding an assembly of plural sheets to form a book-like structure comprising contacting a translatable first contacting surface (702 of Figure 2B) to a backed hot melt adhesive sheet (T, B1, and B2 of Figure 1) located on a spine surface of the assembly of plural sheets (307 of Figure 2B) to fold the protruding end portion of the backed hot melt adhesive sheet around the spine surface, the spine surface being perpendicular to a planar surface of the assembly of plural sheets, and applying force with at least a translatable second contacting surface (703 of Figure 2B) mounted for movement with the first contacting surface to the planar surface in an area where the backed hot melt adhesive sheet contacts the planar surface (Column 4, lines 51-67 and Column 5, lines 41-53). Yamanaka is silent as to including within the clamping jaw (e.g. between the first contacting surface 702 of Figure 1 and press 730 of Figure 1) an active cooling member. Boss discloses a method of binding a plurality of sheets to form a book-like structure comprising providing an assembly of plural sheets (14 of Figure 2) including an adhesive portion along the spine and planar surface of the assembly (12 of Figure 2), providing a clamping jaw (22 of Figure 2) comprising a press (26 of Figure 2), an actively cooled heat sink (30 of Figure 2) attached to, i.e. connected to, and in thermal communication with a contacting surface (28 of Figure 2), displacing the clamping jaw at a distance greater than the thickness of the assembly of plural sheets, translating the clamping jaw to apply pressure to the planar surface of the assembly of plural sheets, applying heat to the clamping body to melt the adhesive, and then withdrawing heat from the assembly of plural sheets and the clamping body through the actively cooled heat sink to form the book-like structure. Boss teaches

including the actively cooled heat sink within the clamping jaw allows rapid heating and cooling of the assembly of plural sheets and clamping body. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include within the clamping jaw (e.g. between the first and second contacting surfaces and press and also attached to an in thermal communication with the first and second contacting surfaces) taught by Yamanaka an active cooling member such as an actively cooled heat sink as shown by Boss to allow rapid heating and cooling of the assembly, and thus, decrease the time required for binding.

Regarding the limitation of removing heat from the hot melt adhesive sheet from above a glass transition temperature of the hot melt adhesive to below the glass transition temperature of the hot melt adhesive, it is noted the hot melt adhesive of the backed hot melt adhesive sheet taught by Yamanaka is heated to above its melt temperature considered above its glass transition temperature and then cooled as shown by Boss to form the book-like structure that is dimensionally stable, i.e. the adhesive is hardened which is considered actively cooled to a temperature below the glass transition temperature of the hot melt adhesive. In the event it is shown the limitation is not necessarily met the following rejection would also apply. It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform Yamanaka as modified by Boss to actively cool the melted adhesive to its hardened temperature considered a temperature below the glass transition temperature of the adhesive from its melt temperature considered a temperature above the glass transition temperature of the adhesive to rapidly form a dimensionally stable book-like structure.

Regarding the limitation that at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive



sheet. It was known in bookbinding apparatus of the type taught by Yamanaka including first and second translatable contacting surfaces (28a and 28b of Figure 1) that the contacting surfaces include an angled leading edge for assisting in folding the protruding end portion of an adhesive backed cover sheet (26 of Figure 1) around the spine surface by contacting the protruding end portion at an offset angle as shown by Clark (Column 6, lines 17-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include on the first and second contacting surfaces taught by Yamanaka an angled leading edge for assisting in folding the protruding end portion of the backed hot melt adhesive sheet around the spine surface by contacting the protruding end portion at an offset angle as shown by Clark.

8. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka, Boss, and Clark as applied above in paragraph 7, and further in view of Kuramoto.

Yamanaka, Boss, and Clark as applied above teach all of the limitations in claims 32 and 33 except for a teaching of attaching the backed hot melt adhesive sheet to the spine surface of the assembly of plural sheets by softening discrete points of the sheet by heating to a temperature above the glass transition temperature of the hot melt adhesive. Kuramoto discloses a method of binding a plurality of sheets to form a book-like structure comprising providing an assembly of plural sheets, contacting a hot melt adhesive sheet to a spine surface of the assembly of plural sheets, melting the hot melt adhesive sheet at discrete points to soften the sheet which is considered to include raising a temperature of the hot melt adhesive above a glass transition temperature of the adhesive, and tack the hot melt adhesive sheet to the spine to prevent displacement of the hot melt adhesive sheet during subsequent processing steps, and then bonding the hot melt adhesive sheet to the spine using a clamping apparatus including an active

cooling means to form the book-like structure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Yamanaka as modified by Boss and Clark a step of tacking the backed hot melt adhesive sheet in discrete points to the spine of the assembly of plural sheets to prevent the backed hot melt adhesive sheet from displacing during clamping with the first and second bonding surfaces as shown by Kuramoto et al.

### *Response to Arguments*

9. Applicant's arguments with respect to claims 26-28, 32, and 33 have been considered but are moot in view of the new ground(s) of rejection.

Claim 26 as amended requires "wherein at least the translatable first contacting surface has an angled leading edge adapted to contact a protruding end portion of the backed hot melt adhesive sheet at an offset angle" which new limitation is addressed above.

### *Conclusion*

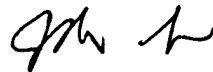
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is (571) 272-1216. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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John L. Goff  
Primary Examiner  
Art Unit 1791